

Guide and Bit Selection

Leigh's FMT is available with either inch or metric guides. A 5/16" HSS spiral bit and the complete set of 5/16" (8mm with the metric version) joint guides come with the FMT. As you select bits, remember that each joint guide produces both the mortise and tenon in the same size when you use a single bit matched to the guide size. A 1/4" bit used with a 1/4" (6mm) guide makes 1/4" (6mm) joints, a 5/16" (8mm) bit and guides makes 5/16" (8mm) joints and so on through 3/8" (10mm) and 1/2" (12mm) sizes for a total of 21 (24 metric)

standard joint sizes. Standard guide sizes are identified in the colored boxes below.

You can more than triple the number of joint sizes by using two bits of different diameters with any of the standard guides, except 1/2" (12mm) guides, as detailed in *Production Routing* on page 32. A total of 47 (55 metric) two bit optional joint sizes are shown in the grey shaded boxes in the selection charts below. Mortise/bit sizes in the column headings and in the chart are highlighted in red. Tenon bit sizes are under the tenon bit headings. The colored box at the right of

each row shows which joint guide to use with each pair of bits. For example, if you want to cut a 1/8" x 1/2" (3mm x 12mm) joint, find that size in the 1/8" (3mm) joint size column. Look to the left of the mortise bit size for the tenon bit size of 3/8" (9mm), and look to the far right of the row for the colored standard joint guide 1/4" x 5/8" (6mm x 15mm).

Further, by using combinations of small machine tool bits you can cut even more sizes of small and miniature joints. (see p.32, *Incredible Miniature Joints are Easy*).

INCH GUIDE AND BIT SELECTION																												
TENON BIT	1/16" JOINT SIZE			TENON BIT	1/8" JOINT SIZE			TENON BIT	3/16" JOINT SIZE			TENON BIT	1/4" JOINT SIZE			TENON BIT	5/16" JOINT SIZE			TENON BIT	3/8" JOINT SIZE			TENON BIT	1/2" JOINT SIZE			
	MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH		MORTISE BIT	X	MORTISE LENGTH	MORTISE BIT
7/16"	1/16"	x	1/8"	3/8"	1/8"	x	3/16"	5/16"	3/16"	x	1/4"	1/4"	1/4"	x	5/16"									1/2"	1/2"	x	1"	
7/16"	1/16"	x	3/16"	3/8"	1/8"	x	1/4"	5/16"	3/16"	x	5/16"	1/4"	1/4"	x	3/8"									1/2"	1/2"	x	1-1/2"	
7/16"	1/16"	x	5/16"	3/8"	1/8"	x	3/8"	5/16"	3/16"	x	7/16"	1/4"	1/4"	x	1/2"									1/2"	1/2"	x	2"	
7/16"	1/16"	x	7/16"	3/8"	1/8"	x	1/2"	5/16"	3/16"	x	9/16"	1/4"	1/4"	x	5/8"									1/2"	1/2"	x	2-1/2"	
7/16"	1/16"	x	9/16"	3/8"	1/8"	x	5/8"	5/16"	3/16"	x	11/16"	1/4"	1/4"	x	3/4"													
7/16"	1/16"	x	13/16"	3/8"	1/8"	x	7/8"	5/16"	3/16"	x	15/16"	1/4"	1/4"	x	1"													
7/16"	1/16"	x	1-1/16"	3/8"	1/8"	x	1-1/8"	5/16"	3/16"	x	1-3/16"	1/4"	1/4"	x	1/4"													
7/16"	1/16"	x	1-5/16"	3/8"	1/8"	x	1-3/8"	5/16"	3/16"	x	1-7/16"	1/4"	1/4"	x	1/2"													
				1/2"	1/8"	x	5/16"	7/16"	3/16"	x	3/8"	3/8"	1/4"	x	7/16"	5/16"	5/16"	x	1/2"									
				1/2"	1/8"	x	9/16"	7/16"	3/16"	x	5/8"	3/8"	1/4"	x	11/16"	5/16"	5/16"	x	3/4"									
				1/2"	1/8"	x	13/16"	7/16"	3/16"	x	7/8"	3/8"	1/4"	x	15/16"	5/16"	5/16"	x	1"									
				1/2"	1/8"	x	1-1/16"	7/16"	3/16"	x	1-1/8"	3/8"	1/4"	x	1-3/16"	5/16"	5/16"	x	1-1/4"									
				1/2"	1/8"	x	1-5/16"	7/16"	3/16"	x	1-3/8"	3/8"	1/4"	x	1-7/16"	5/16"	5/16"	x	1-1/2"									
								1/2"	1/4"	x	7/8"	7/16"	5/16"	x	15/16"	3/8"	3/8"	x	1"									
								1/2"	1/4"	x	1-3/8"	7/16"	5/16"	x	1-7/16"	3/8"	3/8"	x	1-1/2"									
								1/2"	1/4"	x	1-7/8"	7/16"	5/16"	x	1-15/16"	3/8"	3/8"	x	2"									
								1/2"	1/4"	x	2-3/8"	7/16"	5/16"	x	2-7/16"	3/8"	3/8"	x	2-1/2"									

All joint sizes to the left of the standard joint guide may be cut with that joint guide and the Tenon and Mortise bit indicated.

- Standard 1/4" Joint Guides
- Standard 5/16" Joint Guides
- Standard 3/8" Joint Guides
- Standard 1/2" Joint Guides

METRIC GUIDE AND BIT SELECTION																													
TENON BIT	2MM JOINT SIZE		TENON BIT	3MM JOINT SIZE		TENON BIT	4MM JOINT SIZE		TENON BIT	5MM JOINT SIZE		TENON BIT	6MM JOINT SIZE		TENON BIT	7MM JOINT SIZE		TENON BIT	8MM JOINT SIZE		TENON BIT	10MM JOINT SIZE		TENON BIT	12MM JOINT SIZE				
	MORTISE BIT	X		MORTISE LENGTH	MORTISE BIT		X	MORTISE LENGTH		MORTISE BIT	X		MORTISE LENGTH	MORTISE BIT		X	MORTISE LENGTH		MORTISE BIT	X		MORTISE LENGTH	MORTISE BIT		X	MORTISE LENGTH	MORTISE BIT	X	MORTISE LENGTH
10	2	x	4	9	3	x	5	8	4	x	6	7	5	x	7	6	6	x	8							12	12	x	25
10	2	x	6	9	3	x	7	8	4	x	8	7	5	x	9	6	6	x	10							12	12	x	35
10	2	x	11	9	3	x	12	8	4	x	13	7	5	x	14	6	6	x	15							12	12	x	45
10	2	x	16	9	3	x	17	8	4	x	18	7	5	x	19	6	6	x	20							12	12	x	55
10	2	x	21	9	3	x	22	8	4	x	23	7	5	x	24	6	6	x	25							12	12	x	65
10	2	x	26	9	3	x	27	8	4	x	28	7	5	x	29	6	6	x	30										
10	2	x	31	9	3	x	37	8	4	x	33	7	5	x	34	6	6	x	35										
10	2	x	36	9	3	x	37	8	4	x	38	7	5	x	39	6	6	x	40										
								12	4	x	11				10	6	x	13	9	7	x	14	8	8	x	15			
								12	4	x	16				10	6	x	18	9	7	x	19	8	8	x	20			
								12	4	x	21				10	6	x	23	9	7	x	24	8	8	x	25			
								12	4	x	26				10	6	x	28	9	7	x	29	8	8	x	30			
								12	4	x	31				10	6	x	33	9	7	x	34	8	8	x	35			
								12	4	x	36				10	6	x	38	9	7	x	39	8	8	x	40			
																						12	8	x	23	10	10	x	25
																						12	8	x	33	10	10	x	35
																						12	8	x	43	10	10	x	45
																						12	8	x	53	10	10	x	55
																						12	8	x	63	10	10	x	65

All joint sizes to the left of the standard joint guide may be cut with that joint guide and the Tenon and Mortise bit indicated.

- Standard 6mm Joint Guides
- Standard 8mm Joint Guides
- Standard 10mm Joint Guides
- Standard 12mm Joint Guides

12mm guides cannot be used to rout smaller joints

Leigh does not stock metric bits. This information is for users of the metric FMT-M and metric guides, in countries where metric bits and metric router collets are available. Please call your local or national tool distributor for information and availability of metric bits.